

perithecia rugulose, dark brownish-black, shortly conical; ostiola obtuse; asci elongato-cylindrical; sporidia 8 ovate, simple, or with a nucleus, opaque, black, surrounded by gelatin,  $\cdot 001 \times \cdot 0004$  in.

On horse dung, Terrington St. Clements, 1874. On rabbits' dung, Kings Lynn, 1875.

61. **Sphæria (Sordaria) Equorum.** *Winter. Sord. p. 13, t. 7. fig. 2. Coprolepa Equorum, Fckl. Symb. Mycol. p. 240. Sphæriacei Britannici ii. No. 57. Cooke Fungi, Britt. ii., 241-2.*

Perithecia scattered, in a thin subcoriaceous crust-like stroma on the surface of the matrix, covered with a dark brown villosity; ostiola black, somewhat conical; asci cylindrical, octosporous; sporidia uniseriate, ovate, or oblong, black, simple, surrounded by a gelatinous envelope,  $\cdot 0007 \times \cdot 0003$  in.

On horse dung. North Wootton, Shrewsbury.

Grevillea vol. iii., t. 42, fig. 7.—*a*, section of fungus enlarged; *b*, sporidia; *c*, ascus and paraphysis.

62. **Sphæria parmeliarum.** n. sp.

Superficial perithecia, small, black, crowded, somewhat shining, smooth; ostiola minute but distinct, papillæform; sporidia eight, triseptate, elongated, somewhat constricted, pale brown, usually uniseriate, rarely 4-septate,  $\cdot 001 \times \cdot 0005$  in.

Growing parasitically upon *Parmelia saxatilis*, on a living spruce fir tree, Dolgelly, North Wales. June 22, 1875 (Rev. W. A. Leighton).

PLATE 62, FIG. VIII.—1, natural size; 2, asci; 3, sporidia.

63. **Sphæria (Diaporthe) resecans.** *Nke. Nitschke Pyren. Germ. p. 314. Sphæriacei Brit. ii., No. 43.*

Elongated, bursting through the bark longitudinally; perithecia, minute, globose, or slightly depressed; ostiola very small, short; asci clavate or oblong, octosporous; sporidia biseriata, obtusely fusiform, straight, hyaline, bipartite, 2-4 septate, somewhat constricted,  $\cdot 0004$  in.  $\times \cdot 0001$  in.

On *Syringa vulgaris*. Terrington St. Clements, 1874.

64. **Sphæria (Diaporthe) pinophylla.** n. sp.

Perithecia scattered, sometimes two or three in a group, seated beneath a widespreading black crust, immersed in the matrix; ostiola elongated, abruptly truncate at the apex; asci  $\cdot 001$  in. long; sporidia biseriata, hyaline, acute, quadrinucleate, then uniseptate,  $\cdot 007 \times \cdot 0002$  in.

On decaying fir needles (*Pinus sylvestris*), Belmont, Hereford. May, 1875.

PLATE 62, FIG. VII.—1, natural size; 2, a perithecium magnified; 3, ascus; 4, sporidia.

## ON PEZIZA BRUNNEA, A. &amp; S.

By M. C. COOKE.

It is very difficult to determine with accuracy many of the species of fungi described by old authors in the absence of authentic specimens. When specific characters depend nearly entirely on microscopic features, the difficulty becomes almost an impossibility. Since the species of *Peziza* have been subjected to microscopical examination, the limits of species have been more clearly defined, and it is by no means unusual to find that two or three forms, greatly resembling each other in external features, but widely different in fruit, have been confounded together under one name. An instance of this kind we had occasion to point out a short time since in the case of *Peziza calycina*, and now a difficulty presents itself as to the *Peziza brunnea*, Alb. & Schw.

In this instance we have a *Peziza* belonging to the group *Sarcoscypha* and a close ally of *Peziza hemispherica*, but much smaller. A careful perusal of the description given in the *Conspectus*, combined with the coloured figure, will convey a pretty accurate idea of the external features of this *Peziza*. It is from one to three lines broad, of an elegant brown colour, clad externally with scattered fascicles of hairs, but not truly ciliate, of a caespitose habit, expanded when mature, with the margin inflexed. For a long time, and by many authors, a small *Peziza* has been referred to this species, which Dr. Rehm has called *Peziza gregaria*, and Dr. Nylander *Peziza hemisphaerica* var. *minor*. Doubtless it was this which was published by Desmazieres (No. 1312) as *Peziza brunnea*, and since then many have followed his example. It was this form which we had in view as *Peziza brunnea* when the "Handbook of British Fungi" was written.

There are some features in which the above-named species corresponds with the *Peziza brunnea*, A. & S.; but sufficient attention was not paid to their figure, which has a brown hymenium, and, also, to that important phrase in the description, "unicolor, eleganter brunnea," whereas, in the *Peziza gregaria*, Rehm, the disc is of a livid or pale watery grey, and not in the least brown. At a period when the colour of the disc in *Peziza* was regarded as alone of specific value, it would not have been possible for Schweinitz to have described and figured a species with a brown disc, when it really had a pallid one. Hence we cannot regard the *Peziza gregaria*, Rehm, as the *Peziza brunnea*, A. & S.

It is very probable that the *Peziza proximella*, Karst. (Monogr. p. 125), *Peziza hæmispherica* var.  $\beta$ , *proximella*, Karst. (Myc. Fenn. p. 69), is the same as the *Peziza brunnea*, Desm. (not A. & S.), and the *Peziza gregaria*, Rehm. A comparison of the figure given by Sowerby (pl. 369, fig. 1) as *Peziza hybrida* will be found to correspond with Alb. & Schw. figure of *Peziza brunnea*, and not with *Peziza gregaria*.

Recently another *Peziza* has been referred to *Peziza brunnea*, A. & S., with some greater reason, since it has a bright clear brown disc, and is about the same size as that indicated in the "Conspetus." It is this which Dr. Nylander (Observ. p. 21) names *Peziza brunnea*; and also Karsten (Myc. Fenn. p. 75), with spherical sporidia from .013-.017 m.m. diameter. We received the same species from the United States, and applied thereto the name of *Peziza confusa* (U.S. Discomycetes), under the impression that there was no evidence to show that this species was known to Albertini and Schweinitz, or that it exists in any old collection, or has been met with at all until very recently. Although in colour this species approaches the figure given in the "Conspetus," this feature cannot be accepted alone; for we have received from Hungary, through the kindness of Professor Hazslinzzky, a brown terrestrial *Peziza* under the name of *Peziza brunnea*, which has elliptical sporidia, somewhat incurved margin, but not distinctly hairy externally, and much smaller than 1-3 lines.

Until more distinct evidence can be afforded of the identity of Karsten's species with that described by Albertini and Schweinitz, we deem it much more consistent to retain the name of *Peziza confusa*, which we applied to it provisionally, than to take for granted that it is the true *P. brunnea* of which we still have grave doubts. As far as we are aware no brown hairy *Peziza* corresponding with Sowerby's figure has been found in Britain since his time. The nearest approach to it is a pale condition of *Peziza umbrorum*, which is sometimes found with a flesh-coloured disc. Hitherto we do not find that *Peziza confusa* has been recorded at all in the west of Europe, or any where near where the *Peziza brunnea*, Alb. & Schw., was found and figured.

We are, therefore, content to hold the true *Peziza brunnea* in abeyance, and not to accept any of the species which have been referred to it in recent times, in the hope that some more conclusive evidence will be forthcoming in the future to identify and establish this lost species.

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#### LICHEN PILULARIS, DAV.

Can any lichenist inform me what this lichen really is? The Hook. Herb. at Kew has two specimens under this name, which once belonged to Dr. Withering. One of them, which externally admirably resembles the fig. of *L. pilularis*, in "Linn. Trans.," Vol. ii, p. 283, tab. 28, fig. 1, proved, on microscopic examination, to be undoubtedly *Lecidea centigua*, Fr., and the other as certainly to be *Trachylia tympanella*, Fr. The genuine *L. pilularis*, Dav., remains yet to be deciphered. Is the Rev. Hugh Davis's herbarium in existence; and, if so, where preserved?

W. A. LEIGHTON.